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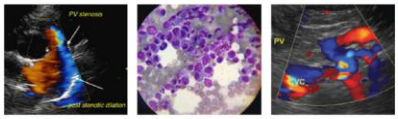
SVS IMAGING



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Bella Brandt

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
3 years

WEIGHT
11.44lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Amy Mayhew, LVT

HOSPITAL NAME
SVS Imaging MI

REFERRING VET
Dr. Sloan

INVOICE
30017

DATE
4/7/23

PRESENTING CLINICAL SIGNS

History: Recheck echo – diagnosed with HOCM 4 months ago. Asymptomatic. Presented for dental procedure today; slightly muffled heart sounds (no arrhythmia or murmur), HR 160's. Enlarged on radiographs with possible pulmonary edema. Blood work normal but ALT slightly elevated. BP: 158mmHg. Sedated with Alfaxalone.
-Current medications: Atenolol – did not receive this morning.
-Pertinent previous echo findings (12/2022 AIS): Moderate LVH, mild LAE with SAM. IVSd: 0.7, LVWd: 0.63, LA: 1.26.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The LV diameter is normal with adequate myocardial function. The LV wall thicknesses are mild to moderately hypertrophied. The papillary muscles appear mildly hypertrophied as well. The endocardium appears mildly remodeled and fibrotic. The left atrium is mild to moderately dilated with a horizontal component. No smoke or thrombi seen. No obvious systolic anterior motion is seen on color flow or 2D imaging. No significant MR. The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity. No aortic insufficiency. Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The right atrium is normal in dimension. The tricuspid valve appears normal with no tricuspid regurgitation. The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow. No pericardial effusion noted. Small pocket of pleural effusion visualized. No obvious cardiac masses.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	5.2	NM	0.66	1.2	0.66	47	83
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE (Swe)** (Abbott)	**LA** 2D short axis Base view (cm) (Abbott)		**LVOT VEL** (m/s)	**RVOT VEL** (m/s)	**E max** (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	NM	1.6	1.5		0.98	0.83	NM

**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hypertrophic obstructive cardiomyopathy (HOCM) persists, as was previously documented. While an obstruction is not appreciated in this study, this may have resolved with Atenolol therapy. The LV wall thickness is mild to moderately increased with mild progression in atrial dilation, suggesting mild progression from the prior study. Pockets of effusion are noted, which are of unknown origin. No additional issues are identified.

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A few things are unusual in this case. First is the patient is asymptomatic, yet there is pleural effusion noted on exam and concern for CHF on films. A Radiologist review is recommended if not already obtained given the unusual presentation. While CHF would be an unlikely cause without significant atrial dilation, a Lasix trial can be instituted to assess response (i.e., with repeat radiographs in 5-7 days given that no symptoms are reported). Other possibilities must also be considered, particularly if there is a lack of response to therapy. A diagnostic tap may be warranted with submission for cytology. Atenolol should be continued based upon the results of the prior report with no obvious indication for additional medications at this time.

Prognosis is guarded, with risk for progression to CHF, development of blood clot events, malignant arrhythmias and/or sudden death in the future.

Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

Anesthetic risk is considered elevated, and should not be performed until the clinical status is further evaluated.

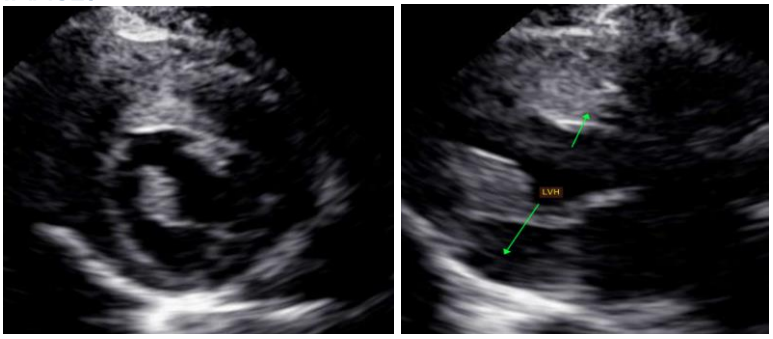
PLAN

Consider a Radiologist review of the films. If no other cause for effusion is known and CHF is suspected, consider a Lasix trial 1-2mg/kg PO q12h with reassessment of CXR in 5-7 days. If no response to therapy is noted on CXR, other causes of effusion must be considered through a diagnostic tap, etc. Continue Atenolol as previously prescribed with a target HR of <160bpm. Consider referral in this complicated case, particularly if the cause of effusion remains elusive.

Screening BP, T4 and blood work every 6 months.

Recommend recheck echocardiogram in 6 months to assess rate of progression, sooner if any issues arise in the interim.

IMAGES



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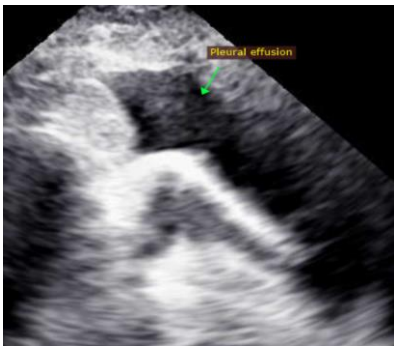

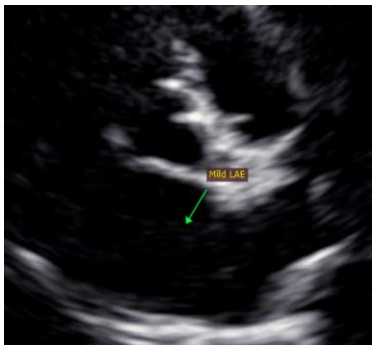

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com